

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
14 March 2002 (14.03.2002)

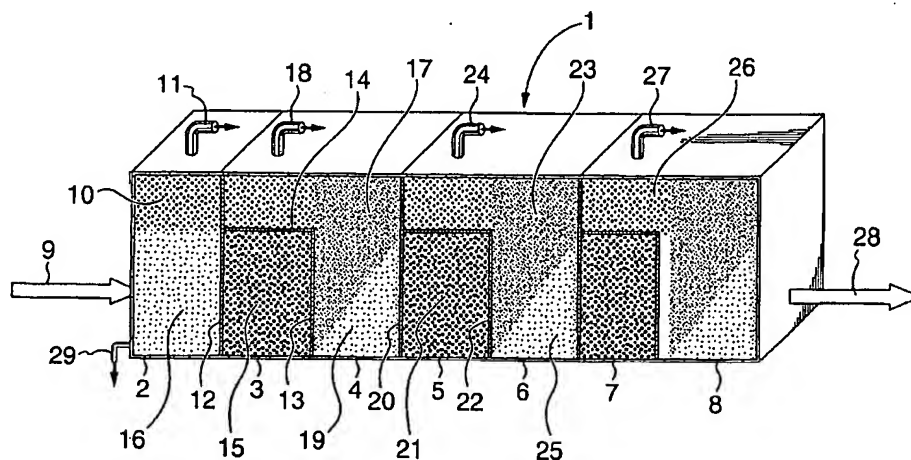
PCT

(10) International Publication Number  
**WO 02/020115 A3**

- (51) International Patent Classification<sup>7</sup>: **B01D 17/04**, 17/022, 17/02 (74) Agents: **WILKES, Robert, A.** et al.; Shapiro Cohen, P.O. Box 3440, Stn. D, Ottawa, Ontario K1P 6P1 (CA).
- (21) International Application Number: PCT/CA01/01284 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (22) International Filing Date: 7 September 2001 (07.09.2001) (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0022013.7 7 September 2000 (07.09.2000) GB
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- Published:  
— with international search report

[Continued on next page]

(54) Title: POLYURETHANE OIL DE-EMULSIFICATION UNIT



(57) Abstract: A process for separating an aqueous emulsion including an aqueous phase and a non-aqueous phase into separated aqueous and non-aqueous phases, to provide a recovered non-aqueous phase, and to provide a recovered aqueous phase containing an acceptable level of the non-aqueous phase. In the process, at least one body, and preferably two or more bodies, of polymeric material with a high surface area, typically a foam material or polymer chips, is used in a horizontal flow treatment system to break the emulsion and thus provide both the aqueous and non-aqueous phases as two separate flows. A wide range of polymers can be used in the system as the polymeric material including polyurethane, polypropylene, polystyrene, polyester, and polyethylene. If a very low level of non-aqueous phase in the effluent is required, for example to meet potable water standards, then a Kozlowski polyurethane, as described in US 5,239,040, is preferred as the last polymeric material body.



(88) Date of publication of the international search report:  
6 September 2002

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

Inter al Application No

PCT/CA 01/01284

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D17/04 B01D17/022 B01D17/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 022 694 A (FRUMAN DANIEL H) 10 May 1977 (1977-05-10) the whole document ---	1-4
X	GB 1 418 806 A (CONTINENTAL OIL CO) 24 December 1975 (1975-12-24) the whole document ---	1-4
X	US 4 213 863 A (ANDERSON JOSEPH W) 22 July 1980 (1980-07-22) the whole document ---	1-4
X	US 3 738 492 A (TRILLICH C) 12 June 1973 (1973-06-12) column 5; figures 1-4 ---	1,2,6,7, 9
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

23 April 2002

Date of mailing of the international search report

02/05/2002

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## INTERNATIONAL SEARCH REPORT

Intern if Application No

PCT/CA 01/01284

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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